

Amendments to the Claims:

Claim 28 is cancelled and claims 23, 25 and 26 are amended as set forth hereinafter.

Listing of Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 to 16 (Cancelled)

17. (Previously Presented) A method for adjusting a lamp unit relative to an illuminating beam path of a microscope devoid of a beam homogenizer in said illuminating beam path, said microscope including: a microscope objective defining a pupil plane; an
5 adjustable lamp unit for supplying the light transmitted along said illuminating beam path and a detector for detecting the light power of the transmitted light, the method comprising the steps of:

measuring the integral light power downstream of said pupil
10 plane of said objective with said detector;

beginning from a start position and determining the maximum gradient of the light power in dependence upon a position change of said lamp unit relative to said illumination beam path; and,

displacing said lamp unit in a direction of the maximum
15 gradient of light power until the light power detected by said detector is a maximum.

18. (Previously Presented) The method of claim 17, wherein the adjustment of said lamp unit takes place using a motor controlled by software.

19. (Previously Presented) The method of claim 18, wherein said microscope includes an evaluation computer and motors for moving said lamp unit relative to said illuminating beam path, the method comprising the further step of utilizing said computer to
5 drive said motors for moving said lamp unit until said maximum of said light power is reached.

20. (Previously Presented) A microscope comprising:

a specimen table;

a light unit for supplying a light for illumination along an illuminating beam path devoid of a beam homogenizer;

5 motor drives for adjusting said light unit relative to said illuminating beam path;

a microscope objective defining a pupil plane;

a detector integrated into said specimen table; and,

an evaluation and control computer connected to said
10 detector and functioning to sequentially drive said motor drives until a maximum of an integral light power is measured with said detector.

21. (Previously Presented) The microscope of claim 20, wherein said microscope defines an optical axis along said beam path; and, said microscope further comprises: a collector optic mounted

in said illuminating beam path downstream of said lamp unit; and,
5 an additional motor drive for displacing said collector optic
along said optical axis.

22. (Previously Presented) The microscope of claim 21, wherein
said evaluation and control computer further functions to apply a
gradient method for locating said maximum of said light power by
carrying out the following steps:

5 beginning from a start position and determining the
maximum gradient of the light power in dependence upon a
position change of at least one of said lamp unit and said
collector optic; and,

10 displacing at least one of said lamp unit and said
collector optic in a direction of the maximum gradient of the
integral light power.

23. (Currently Amended) A method for adjusting a lamp unit
relative to an illumination beam path of a microscope devoid of a
beam homogenizer in said illumination beam path, said microscope
including: an optic defining a pupil plane in said illuminating
5 beam path; an adjustable lamp unit for supplying the light
transmitted along said illumination beam path and a detector for
detecting the light power of the transmitted light, the method
comprising the steps of:

10 measuring the integral light power downstream of said pupil
plane of ~~said objective~~ with said detector;

beginning from a start position and determining the maximum
gradient of the light power in dependence upon a position change

of said lamp unit relative to said illumination beam path; and,
displacing said lamp unit in a direction of the maximum
15 gradient of light power until the light power detected by said
detector is a maximum.

24. (Previously Presented) The method of claim 23, wherein the
adjustment of said lamp unit takes place using a motor controlled
by software.

25. (Currently Amended) The method of ~~claim 10~~, claim 24,
wherein said microscope includes an evaluation computer and
motors for moving said lamp unit relative to said illuminating
beam path, the method comprising the further step of utilizing
5 said computer to drive said motors for moving said lamp unit
until said maximum of said light power is reached.

26. (Withdrawn and Currently Amended) A microscope comprising:
a specimen table;
a light unit for supplying a light for illumination along an
illumination beam path devoid of a beam homogenizer;
5 motor drives for adjusting said light unit relative to said
illuminating beam path;
an optic defining a pupil plane in said illumination beam
path;
a partially transmitting mirror mounted in said illumination
10 beam path upstream of said specimen table;
a detector mounted in a beam path deflected by said
partially transmitting mirror downstream of said pupil plane for

detecting the light power in said illumination beam path; ~~and,~~

an evaluation and control computer connected to said

15 detector and functioning to sequentially drive said motor drives
until a maximum of an integral light power is measured with said
detector detector; and,

said evaluation and control computer further functioning to
apply a gradient method for locating said maximum of said light
20 power by carrying out the following steps:

beginning from a start position and determining the maximum
gradient of the light power in dependence upon a position change
of at least one of said lamp unit and said collector optic; and,

displacing at least one of said lamp unit and said collector
25 optic in a direction of the maximum gradient of the integral
light power.

27. (Withdrawn) The microscope of claim 26, wherein said
microscope defines an optical axis along said beam path; and,
said microscope further comprises: a collector optic mounted in
said illuminating beam path downstream of said lamp unit; and, an
5 additional motor drive for displacing said collector optic along
said optical axis.

28. (Cancelled).